

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

SEP 17 1928

THE INSECT PEST SURVEY
BULLETIN

A periodical review of entomological conditions throughout the United States
issued on the first of each month from March to December, inclusive.

Volume 8

September 1, 1928

Number 7

BUREAU OF ENTOMOLOGY
UNITED STATES
DEPARTMENT OF AGRICULTURE
AND
THE STATE ENTOMOLOGICAL
AGENCIES COOPERATING

INSECT PEST SURVEY BULLETIN

Vol. 8

September 1, 1928

No. 7

OUTSTANDING ENTOMOLOGICAL FEATURES IN THE UNITED STATES FOR AUGUST, 1928

The rather serious grasshopper outbreak previously reported from the western part of the two Dakotas and Nebraska continued during the early part of this month. In Scotts Bluff County, Neb., and in the Platte River Valley practically all crops, including grains, alfalfa, sugar beets, and fruit trees, were attacked.

Recent scouting has disclosed the presence of the Japanese beetle in Hartford and New Haven, Conn., in Springfield, Mass., generally throughout northern and eastern Md., in many places in Del., at Alexandria, Va., and at Lewiston, Pa.

In this number of the bulletin there is a detailed statement of the Hessian fly survey of Illinois. In most sections of the State this insect is less abundant this season than last. There are moderately heavy infestations along the southwestern side of the State. The average infestation of the counties surveyed amounts to 5.5 per cent as compared with 4.3 per cent last year. There is also a detailed report of the wheat joint worm survey carried on in Illinois in conjunction with the Hessian fly work. Present indications are that a very heavy infestation of the Hessian fly is developing in southeastern Nebraska.

In general throughout the country the corn ear worm is not so serious as it usually is.

Very serious wireworm injury is being reported from Brunson, Hampton County, S. C.

Though generally cutworm trouble is not so serious as usual this season, the W-marked cutworm is reported as seriously damaging crops in Manitowoc County, Wis.

The fruit tree leaf roller and the apple and thorn skeletonizer are decidedly more prevalent than usual in parts of New York State.

The pear midge is reported as very serious in the Hudson River Valley, N. Y., where in some cases 50 per cent of the crop has been destroyed this season.

The oriental peach moth, though not abnormally destructive in the older infested territory, is now reported from as far north as Jackson and Williamson Counties, Ill., and quite serious in Greene County, O.

The imported cabbage worm is reported as causing very serious losses in northern Illinois and southern Wis. Less serious injury is reported from western New York State and the Birmingham district of Ala.

The cabbage maggot is more serious than it has been for many years in central and western New York.

The velvet bean caterpillar is reported for the first time as a primary pest of peanuts in Fla. Usually this insect moves into peanuts from infested velvet bean fields.

Recent inspection in Ala. indicates that the campaign to control the sweet-potato weevil is promisingly successful.

The newly discovered wireworm Heteroderes laurentii Guer. is recorded as showing what appears to be a preference for certain varieties of sweet potato in Ala.

The changa is doing more damage than it has in the past several years in Fla.

A very heavy outbreak of the semitropical armyworm, covering practically all of the Florida peninsula, has been under way throughout the month. In addition to defoliating its native food plant, it has done much damage to ornamentals and castor beans. This is the heaviest outbreak of this insect that has occurred since 1917.

Brood II of the periodical cicada, the first large brood recorded from the Middle Atlantic States, reappeared this spring. This brood occurs, in general, in the territory immediately east of Brood I. A few doubtful records have been made in past years from Indiana, Illinois, and Michigan, but not one of these was confirmed by this year's appearance. In general, the brood was centered about northern New Jersey, southern New York, and south-central Connecticut. The records from the territory southward to North Carolina were very scattering and the colonies were comparatively small.

Brood XXVII of the tridecim race, recorded for the first time in 1902 from Franklin County, Miss., and again recorded from that locality in 1915, in which year it was also recorded from Chicot and Philips Counties, Ark., appeared this year at a single point and with a single specimen at Yazoo City, Miss.

The summary number of the Insect Pest Survey Bulletin which will appear in December will include a complete list and map of all of the localities so far recorded for these two broods.

OUTSTANDING ENTOMOLOGICAL FEATURES IN CANADA FOR AUGUST, 1928

The bertha armyworm, Barathra configurata Walk., is present in outbreak form in southern Alberta and in southern Manitoba, affecting sweet clover, flax, and many garden plants.

Few reports of cutworm damage have been received from any part of the Dominion. Reports indicate that cutworms are everywhere subnormally abundant.

While the numbers of grasshoppers in the outbreak area in the Chilcotin district, British Columbia, far exceed normal, no great damage has been done.

Reports from sections of British Columbia, Ontario, and New Brunswick indicate that the imported cabbage worm is unusually prevalent this season.

The wireworm Iudius aereipennis Kby. has caused serious losses in wheat, particularly on summer-fallowed land in the Peace River district, Alberta.

The corn ear worm is prevalent in cornfields in southern Ontario.

There is a heavy infestation of the green apple aphid in orchards of the Okanagan valley, British Columbia, principally affecting young trees.

The pear slug is prevalent on pear, cherry, and hawthorn throughout the lower Fraser River valley, British Columbia.

A somewhat larger than average second brood of the codling moth is expected in the Niagara district, Ontario, and owing to a shortage of apples in many orchards the percentage of codling moth injury will probably run unusually high.

The beetle Melitta bimarginata Say has caused the complete defoliation of willows on the southern part of Vancouver Island, British Columbia.

The willow leaf beetle Galerucella decorata Say has stripped most of the willows throughout south-central Manitoba and occurs from Winnipeg west to the Saskatchewan boundary.

The tussock moth Hemerocampa pseudotsugata McD. attacked two small areas of Pseudotsuga taxifolia Britt., near Kamloops and Pritchard, British Columbia, a few of the trees being 90 per cent defoliated.

The forest tent caterpillar caused the complete defoliation of

shade trees in northeastern Alberta. Egg-rings of this species have been received from points all over the territory infested this spring.

A survey in New Brunswick indicates that the larch sawfly is comparatively scarce in the province this year.

In the Kamloops area and the Chilcotin district, British Columbia, biting flies, including tabanids, simuliids, and leptids, are reported as much more troublesome than usual.

An outbreak of the rainpool mosquito, Aedes vexans Mgn. occurred in many sections of Ontario and Quebec as a result of heavy rains in July.

GENERAL FEEDERS

GRASSHOPPERS (Acrididae)

Nebraska

M. H. Swenk (July 15-August 1): Damage by grasshoppers, especially Melanoplus bivittatus Say, continues to be reported from western Nebraska. Crops are being seriously damaged in Scotts Bluff County and somewhat less severely in the Platte Valley east to Dawson County, where not only alfalfa and grain fields but also sugar beets are being attacked. A man in Colfax County reports that his fruit trees are being stripped by grasshoppers. In eastern Nebraska Melanoplus differentialis Thos. was attaining its wings during the last few days in July.

WHITE GRUBS (Phyllophaga spp.)

New York

C. R. Crosby and assistants (August 7): Doing considerable damage in the extreme western part of the State. (Abstract J.A.H.)

Ohio

E. W. Mendenhall (August 1): I find aster plants in a nursery at New Carlisle (Clark County) affected by the white grubs which are doing considerable damage. The ground where planting was made was in sod last year.

Texas

F. L. Thomas (July 10): Eight hundred and five beetles trapped in two hours. 8:15-10:15 P. M. Stripping foliage on young pecans and Chinese elm trees at College Station.

ROSE CHAFER (Macrodactylus subspinosus Fab.)

New York

C. R. Crosby and assistants (August 7): Though occasionally reported doing commercial damage, as a whole this insect is not unusually abundant this year. (Abstract J. A. H.)

Nebraska

M. H. Swenk (July 15-August 1): The last complaint of injury by the rose chafer was sent in from Cherry County on July 23.

JAPANESE BEETLE (Popillia japonica Newm.)

United States

C. H. Hadley (August 10): Locations at which scouts have found specimens of the Japanese beetle this season include: Hartford and New Haven, Conn.; Springfield, Mass; Baltimore, Cambridge, Chesapeake City, Delmar, Elkton, Perryville, and White Marsh, Md.; Clayton, Delmar, Dover, Harrington, Middleton, Port Penn, and Townsend, Del.; Washington, D. C.; Alexandria, Va.; and Lewiston, Pa.

In the center of the infested area the insects have been less injurious than in some previous seasons but in the more recently infested districts they are increasing in number.

ASIATIC BEETLE (Anomala orientalis Waterh.)

Connecticut

R. B. Friend (July 25): Adults have been much more abundant this year than formerly at New Haven.

ARMYWORM (Cirphis unipuncta Haw.)

Wisconsin

E. L. Chambers (August 10): Several small outbreaks of the armyworm were discovered before more than 20 or 30 acres of crops were destroyed in Ozaukee and Manitowoc Counties, but control measures were necessary to check them.

FALL ARMYWORM (Laphygma frugiperda S. & A.)

Mississippi

R. W. Harned (August 27): Several complaints in regard to the southern grassworm have been received recently, although only slight or medium damage has been caused in each case. Specimens collected on corn have been received from Walnut Grove, West Point, Yazoo City, Valley, Kosciusko, and Pascagoula. Specimens collected on arborvitae and privet were sent in from McComb.

C E R E A L A N D F O R A G E - C R O P I N S E C T S

WHEAT

HESSIAN FLY (Phytophaga destructor Say)

Illinois

W. P. Flint (August 2): The wheat insect survey which is made the first of August of each year by the entomologists of the Natural History Survey and the Federal Bureau of Entomology co-operating has just been completed. This survey during the present season covered wheat fields in 53 counties in the principal wheat-growing areas of the State, involving the examination of almost 25,000 wheat tillers. In most sections of the State the Hessian fly is less abundant this season than last, and the infestation on the whole is light. There is a moderately heavy infestation along the southeastern side of the State in the group of counties starting with Wabash and Edgar on the south and extending northward to Champaign and Vermilion counties, with the heaviest infestation in Lawrence, Clark, Coles, Douglas and nearby counties.

The following table shows the infestation of tillers by the Hessian fly in the different counties of the State. While the Hessian fly is generally present in northern, central, and southern Illinois, it is very scarce this year. In a narrow belt across the south-central counties, as already mentioned, there is a moderately heavy infestation.

In most counties early-sown wheat will probably not show a heavy infestation by the fly this fall. General early seeding will, of course, bring up the infestation next year.

County	Ave. Per cent :Infested	County	Ave. Per cent :Infested	County	Ave. Per cent :Infested
Adams	: .8	Greene	: 6.7	Menard	: 3.2
Brown	: 3.5	Hancock	: .3	Monroe	: 3.4
Bureau	: .8	Henry	: .2	Montgomery	: 11.0
Cass	: .6	Troquois	: 1.0	Morgan	: 1.6
Champaign	: 8.8	Jackson	: 1.2	Moultrie	: 11.0
Christian	: 10.2	Jersey	: 10.5	Ogle	: 0
Clark	: 30.0	Kankakee	: 3.0	Perry	: 1.2
Clinton	: 13.0	LaSalle	: 1.2	Piatt	: 12.0
Coles	: 16.0	Lawrence	: 4.2	Randolph	: 3.2
Crawford	: 52.0	Lee	: .3	Rock Island	: 0
DeKalb	: .3	Livingston	: 2.0	Saline	: 4.0
DeWitt	: 1.0	Logan	: 2.2	Sangamon	: 2.2
Douglas	: 11.0	McDonough	: 2.5	Schuyler	: 5.0
Edgar	: 14.0	McLean	: 2.5	Tazewell	: 1.2
Edwards	: 6.0	Macon	: 12.0	Vermilion	: 7.0
Ford	: 1.3	Macoupin	: 2.8	Wabash	: 6.0
Fulton	: 2.6	Madison	: 4.0	Whiteside	: .6
Gallatin	: 1.5	Mason	: 1.0	Will	: 1.0
				Williamson	: 1.1

Nebraska

M. H. Swenk (July 15-August 1): Further evidence that a general infestation by the Hessian fly is developing in southeastern Nebraska was secured during July. About one-half of the fields in west-central Seward County have been found infested, while in certain sections of Buffalo County some fields have been damaged as much as 20 per cent. There is a slight infestation as far west as south-central Redwillow County. Reports of damage around Benkelman, in Dundy County, have not been verified and are regarded as open to doubt.

WHEAT JOINT WORM (Harmolita tritici Fitch)

Illinois

W. P. Flint (August 21): The cooperative wheat-insect survey has just been completed. The following table gives the result of joint-worm infestation ascertained in this survey which covered 53 counties.

County	Ave. Per cent :Infested	County	Ave. Per cent :Infested	County	Ave. Per cent :Infested
Adams	: .8	Clinton	: .4	Edgar	: .2
Brown	: .5	Coles	: 0	Edwards	: .4
Bureau	: .2	Crawford	: 1.0	Ford	: 0
Cass	: 0	DeKalb	: .3	Fulton	: .0
Champaign	: 0	DeWitt	: 0	Gallatin	: 2.6
Christian	: .7	Douglas	: 0	Greene	: .2
Clark	: .2				

County	: Ave. : : Per cent: : Infested:	County	: Ave. : : Per cent: : Infested:	County	: Ave. : : Per cent: : Infested:
Hancock	: 0	McLean	: 0	Piatt	: 0
Henry	: .4	Macon	: 0	Randolph	: 6.8
Iroquois	: 0	Macoupin	: 0	Rock Island	: .2
Jackson	: .2	Madison	: .4	Saline	: 0
Jersey	: 0	Mason	: 0	Sangamon	: .8
Kankakee	: 0	Menard	: 1.0	Schuyler	: 0
LaSalle	: .4	Monroe	: 0	Tazewell	: 0
Lawrence	: 0	Montgomery	: .2	Vermilion	: .4
Lee	: .3	Morgan	: .2	Wabash	: 0
Livingston	: 0	Moultrie	: 0	Whiteside	: 1.0
Logan	: 2	Ogle	: .5	Will	: 0
McDonough	: 4.0	Perry	: .2	Williamson	: .3

WHEAT SHEATH WORM (Harmolita vaginicola Doane)

Michigan

R. H. Pettit (August 15): The wheat sheath worm has appeared at Maple City and is reported to be quite plentiful in individual fields.

CHINCH BUG (Blissus leucopterus Say)

Florida

J. R. Watson (August 20): Chinch bugs have been fairly as injurious to St. Augustine grass lawns as usual this time of year. The householders in increasing numbers are substituting centipede grass for St. Augustine grass in their lawns as a result of the depredations of this insect.

CORN

CORN EAR WORM (Heliothis obsoleta Fab.)

New York

M. N. Taylor (August 7): Scarce to date in Erie County.

Illinois

W. P. Flint (August 21): There have been few seasons in the past when this insect has been as scarce as it is this season. Examinations in a large number of cornfields in east-central Illinois have failed to show a single ear of corn infested by this worm. To date no moths have been taken at bait traps or seen in the evening about flower beds, where they are usually quite numerous.

Iowa and
South Dakota

C. E. Ainslie (August 14): Not for many years has there been less damage done by the corn ear worm than during the present season at Sioux City. Garden sweet corn that was planted early was injured severely by these larvae but field corn here and in southeastern South Dakota is almost entirely free from attack.

STALK BORER (Papaipema nebris nitela Guen.)

Connecticut

W. E. Britton (July 24): Very destructive to corn in a small section of Wetherfield, nearly every stalk being infested. (August 24): Reported from Thomaston, Madison, and Meriden.

Nebraska

M. H. Swenk (July 15-August 1): Complaints of injury to corn by the stalk borer continued to come in during the last half of July. One report related to injury to tomatoes. The reports covered the area from Knox and Rock Counties south to Gage and Nemaha Counties and west to Custer and Furnas Counties.

LESSER CORN STALK BORER (Elasmopalpus lignosellus Zell.)

Texas

F. L. Thomas (July 24): Attacking cowpeas at Harlingen.

MAIZE BILLBUG (Sphenophorus maidis Chitt.)

Kansas

J. W. McColloch (August 7): The maize billbug has caused some loss to corn in a field near Marion.

WIREWORMS (Elateridae)

South Carolina

J. N. Tenhet (August 14): I went to Brunson and investigated wireworms there and in the surrounding territory. Most of the damage seems to be due to larvae of Horistonotus spp., although I have reason to suspect some injury by Monocrepidius vespertinus Fab., as I found adults of this species in abundance. Farmers' estimate of damage this year varied from 10 to 20 per cent of all crops in Hampton County. Farmers all say that the injury is increasing rapidly, and has been doing so for the last few years. Business men told me that wireworms had caused a depreciation in the value of farm land, in the last five years, that would be conservatively placed at one million dollars. This was entirely credible after seeing the territory. I saw field after field grown up in weeds and at least five or six farms which had been completely abandoned by their owners on account of wireworms. I saw several large farms in an excellent state of fertility where almost two-thirds of all crops would be a total loss this season. The majority of the infestations and the greatest damage appear to be in the lighter, sandier, types of soil; crops are almost completely destroyed.

All crops seemed to be attacked, although velvet beans appeared to have some degree of immunity. Farmers state that where land is heavily infested, the only means of relief is to fallow the land for at least two years. Mr. W. A. Thomas in 1910 and Mr. H. C. Egerton in 1914 worked on these wireworms for the State of South Carolina. They both state that humus, increasing the soil fertility, and lime showed much benefit. As previously stated, however, several fields were noted, very

rich in humus, and heavily fertilized, which were almost ruined by wireworms, and peanuts treated with landplaster were heavily damaged.

Nebraska

M. H. Swenk (July 15-August 1): Corn wireworms, Melanotus spp., continued some injury to replanted corn during the second half of July. One field in Holt County that was planted in May and destroyed by wireworms had the July replanting also destroyed. The species in this case was Melanotus pilosus. Injury to potatoes by wireworms was reported from Thayer County.

CORN LANTERN FLY (Peregrinus maidis Ashm.)

Mississippi

R. W. Harned (August 27): Injury to corn by the corn lantern fly Peregrinus maidis was reported from Big Point and Pascagoula on August 9.

A CENTIPEDE (Scutigera immaculata Newp.)

New York

M. N. Taylor (August 7): Abundant last year in Erie County, causing complete loss of the corn crop. This land was then treated with gas, and none could be found this year.

SCOTCH PEAS AND COWPEAS

W-MARKED CUTWORM (Agrotis unicolor Walk.)

Wisconsin

E. L. Chambers (August 15): A pest, reported as the armyworm was doing serious damage to crops in Manitowoc County, but upon investigation it was found to be the W-marked cutworm. It had completely defoliated some 40 acres of Scotch peas.

YELLOW WOOLLY BEAR (Diacrisia virginica Fab.)

Mississippi

R. W. Harned (August 27): Some larvae that were reported as causing considerable injury to cotton and cowpeas at Yazoo City on August 8 have been reared and identified by J. M. Langston as Diacrisia virginica.

COWPEA CURCULIO (Chalcodermus aeneus Boh.)

North Carolina

W. A. Thomas (August 1): The cowpea curculio is unusually abundant in the fields at Chadbourn at this time and is seriously injuring cowpeas, which were planted early for table use. Many pods have been observed where every seed contained a weevil egg. The pods are not seriously injured until they are two-thirds grown or over. Every field of cowpeas so far examined has shown a more or less heavy infestation.

ALFALFA

GARDEN WEBWORM (Loxostege similalis Guen.)

Kansas J. W. McColloch (August 13): A farmer at Hazleton reports his alfalfa crop ruined by this insect.

ALFALFA CATERPILLAR (Eurymus eurytheme Boisd.)

Mississippi R. W. Harned (August 27): The alfalfa caterpillar was reported as very abundant in several alfalfa fields in Bolivar and Washington Counties early in August.

THREE-CORNERED ALFALFA HOPPER (Stictocephala festina Say)

Mississippi R. W. Harned (August 27): The three cornered alfalfa hopper, has been very abundant during the month of August in alfalfa fields in Bolivar, Washington, Sharkey, Yazoo, Oktibbeha, and Lee Counties.

CLOVER

BUMBLEBEES (Bombus spp.)

Illinois W. P. Flint (August 21): Mr. J. H. Bigger reports bumblebees very scarce in clover fields in the western part of the State this season.

SOYBEANS

GREEN CLOVER WORM (Plathypena scabra Fab.)

Mississippi R. W. Harned (August 27): Serious injury to soybeans by the green clover worm was reported by a correspondent at Rienzi, Alcorn County, on July 28. Some injury to alfalfa by this insect was reported from Bolivar and Washington Counties on August 9.

F R U I T I N S E C T S

APPLE APHID (Aphis pomi DeG.)

New York C. R. Crosby and assistants (August 7): Throughout the apple-growing sections of the State, both in the Lake Region and Hudson River Valley, this insect continued to be extremely scarce and of little economic importance. (Abstract J.A.H.)

Ohio E. W. Mendenhall (August 14): The apple aphid is very bad on

apple stock in nurseries in southwestern Ohio and did considerable damage to the leaves.

ROSY APPLE APHID (Anuraphis roseus Baker)

New York C. R. Crosby and assistants (August 7): Reports from all parts of the State indicate that this insect is subnormally abundant; occasional orchards in Monroe County, however, show considerable injury. (Abstract J. A. H.)

CODLING MOTH (Carpocapsa pomonella L.)

New York C. R. Crosby and assistants (August 7): About the normal amount of sideworm injury is appearing in the main apple-growing sections of the State. (Abstract J. A. H.)

Georgia E. Lee Worsham (August 27): Damage to apples is light as compared with last year.

Illinois W. P. Flint (August 21): The late first-brood codling moths are now fairly numerous in orchards in the central part of the State. They are somewhat less numerous in the southern part of the State.
According to Mr. Chandler's breeding-cage records, third-brood larvae would begin hatching in the vicinity of Carbondale on August 25.

FRUIT TREE LEAF ROLLER (Archips argyrospila Walk.)

New York C. R. Crosby and assistants (August 7): Generally troublesome throughout the Hudson River Valley, in many cases causing considerable injury. In Orleans County it is believed that oil sprays will be necessary in many orchards. In Monroe County as high as 30 to 40 per cent of the picked fruit will be injured. (Abstract J. A. H.)

RED-HUMPED CATERPILLAR (Schizura concinna S. & A.)

Ohio E. W. Mendenhall (August 13): The red-humped apple caterpillar is found in an orchard at Columbus and doing some damage.

EASTERN TENT CATERPILLAR (Malacosoma americana Fab.)

Tennessee A. C. Morgan (August 28): The apple tree tent caterpillar is absent this year.

CIGAR CASE BEARER (Coleophora fletcherella Fern.)

New York

C. R. Crosby and assistants (August 7): Though very abundant in neglected orchards, this insect is not a commercial factor where spraying is practiced. (Abstract J. A. H.)

PISTOL CASE BEARER (Coleophora malivorella Riley)

New York

C. R. Crosby and assistants (August 7): Though not so abundant as the cigar case bearer, this insect appears to be worse than usual in neglected orchards, particularly in the Hudson River Valley. (Abstract J. A. H.)

APPLE AND THORN SKELETONIZER (Hemerophila pariana Clerck)

New York

C. R. Crosby and assistants (August 7): From reports received from Dutchess County this insect seems to be less abundant than usual in the Hudson River Valley. In central New York, however, this pest is doing more damage than in many years. The damage, however, is confined to orchards in which an incomplete spray schedule is followed. In many cases all of the terminal twigs are defoliated and in some cases the trees are entirely defoliated. (Abstract J. A. H.)

Maine

C. R. Phipps (August 27): The work of the second-generation larvae of this insect is very noticeable on apples on roadside trees and poorly sprayed orchards throughout the State. Last year Maine experienced her first outbreak and this season the attack is equally severe.

EYE-SPOTTED BUDMOTH (Spilonota ocellana Schiff.)

New York

C. R. Crosby and assistants (August 7): Becoming increasingly troublesome and in some cases doing commercial damage, especially where spraying was neglected. Reported more abundant than usual from Orleans, Monroe, Niagara, Chautauqua, and Erie Counties. (Abstract J. A. H.)

APPLE MAGGOT (Rhagoletis pomonella Walsh)

New York

C. R. Crosby and assistants (August 7): Though more abundant than last year in the lower Hudson River Valley, the apple maggot is not so abundant as it was in 1926. (Abstract J. A. H.)

HAG MOTH (Phobetrus pithecius S. & A.)

Connecticut

W. E. Britton (August 24): Reported from Meriden on apple and from Hartford on pear.

GREEN FRUIT WORM (Graptolitha antennata Walk.)

New York C. R. Crosby and assistants (August 7): Generally scarce throughout the entire State. (Abstract J. A. H.).

FALL WEBWORM (Hyphantria cunea Drury)

Connecticut M. P. Zappe (August 22): Present over entire State but seems to be more abundant in northeastern and southeastern portions of State. Seems to be a little more plentiful compared with an average year.

New York C. R. Crosby and assistants (August 7): Very few observed in any part of the State. (Abstract J. A. H.)

ROUND-HEADED APPLE TREE BORER (Saperda candida Fab.)

New York C. R. Crosby and assistants (August 7): Though occasioning but little damage throughout the greater part of the State, this insect has proved troublesome in several orchards in Orange County. (Abstract J. A. H.)

A BEETLE (Anomala minuta Burm.)

Georgia E. Lee Worsham (July 28): Anomala minuta Burm. is attacking ripening apples at Cornelia, and causing the apple growers considerable worry. The damage is quite similar to that by the Japanese beetle. (Identification by W. S. Fisher). (August 27): Has disappeared from the apple orchards in northern Georgia after feeding on the maturing fruit for about two weeks.

NEW YORK WEEVIL (Ithycerus noveboracensis Forst.)

New York Ray Bender (July 27): Fifty per cent of the young trees in a one-year-old planting on new ground in Dutchess County were injured by the beetles eating out holes where the new shoots start.

APPLE REDBUG (Lygidea mendax Reut.)

New York C. R. Crosby and assistants (August 7): Severe injury has been occasioned in some orchards in the Hudson River Valley. This insect was about normally abundant in central New York and doing practically no damage in the western part of the State. (Abstract J. A. H.)

APPLE LEAFHOPPER (Empoasca mali LeB.)

New York C. R. Crosby and assistants (August 7): Became very abundant late in July and continued abundant throughout the month in the

Hudson River Valley, but very little damage was reported from central New York. (Abstract J. A. H.)

EUROPEAN RED MITE (Paratetranychus pilosus C. & F.)

Maine C. R. Phipps (August 27): This represents the first serious outbreak of the European red mite in Maine. Some orchards were entirely bronzed in color by August 15.

Connecticut Philip Garman (July): Generally scarce during July but reported as abundant in North Branford.

New York C. R. Crosby and assistants (August 7): Decidedly less abundant than last year and doing practically no commercial damage. (Abstract J. A. H.)

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

New York C. R. Crosby and assistants (August 7): This insect, is reported from practically all counties as being of no commercial importance in sprayed orchards. (Abstract J. A. H.)

Illinois W. P. Flint (August 21): As is to be expected, following the severe winter killing of the San Jose Scale, this insect is less abundant than usual, as reported by the nursery inspectors in the State this season.

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

New York C. R. Crosby and assistants (August 7): This insect, though reported as occurring throughout all counties, is doing practically no damage in sprayed orchards. (Abstract J. A. H.)

PEAR

PEAR PSYLLA (Psyllia pyricola Foerst.)

Connecticut Philip Garman (July): Generally scarce and much less abundant than last year at this time. (August 24): Very much less abundant than during August, 1927. Little or no damage done to the pear crop this year in New Haven County. More abundant compared with last month.

New York C. R. Crosby and assistants (August 7): Much less abundant than in many years throughout all parts of the State. (Abstract J. A. H.)

PEAR LEAF BLISTER MITE (Eriophyes pyri Pgst.)

New York C. R. Crosby and assistants (August 7): Of little or no importance throughout the entire State. (Abstract J. A. H.)

SINUATE PEAR TREE BORER (Agrilus sinuatus Oliv.)

New York

C. R. Crosby and assistants (August 7): Causing serious injury in parts of Dutchess and Orange Counties. (Abstract J.A.H.)

PEAR THRIPS (Taeniothrips inconsequens Uzel)

New York

C. R. Crosby and assistants (August 7): Though generally prevalent in the eastern part of the State, this insect did but little damage except in parts of Ulster County. (Abstract J.A.H.)

PEAR MIDGE (Contarinia pyrivora Riley)

New York

C. R. Crosby and assistants (August 7): This insect is proving very serious in the Hudson River Valley. Reports of severe damage have been received from Orange, Ulster, Dutchess, and Columbia Counties where as high as 50 per cent of the crop has been destroyed in some places. In western New York infestations are unimportant. (Abstract J. A. H.)

TARNISHED PLANT BUG (Lygus pratensis L.)

New York

C. R. Crosby and assistants (August 7): Did considerable damage to Seckel pears in Ulster County. (Abstract J. A. H.)

PEAR SLUG (Eriocampoides limacina Retz.)

New York

C. R. Crosby and assistants (August 7): Rather scarce, doing but little damage in the Hudson River Valley. More serious than in many years in central and western New York in Monroe and Niagara Counties. (Abstract J. A. H.)

QUINCE

QUINCE CURCULIO (Conotrachelus crataegi Walsh)

Connecticut

W. E. Britton (August 24): Fruits showed characteristic injuries caused by this insect at Branford.

New York

C. R. Crosby and assistants (August 7): Doing slight damage in parts of Dutchess and Ulster Counties. (Abstract J. A. H.)

PEACH

GREEN PEACH APHID (Myzus persicae Sulz.)

New York

C. R. Crosby and assistants (August 7): Generally scarce throughout the State. (Abstract J. A. H.)

PEACH BORER (Aegeria exitiosa Say)

New York C. R. Crosby and assistants (August 7): About normally abundant throughout the State. (Abstract J. A. H.)

Illinois W. P. Flint (August 21): Adults of the peach tree borer began emerging during the week of July 16. Emergence is continuing. It is apparently, according to Mr. Chandler's observations, lagging a little behind the emergence of last year.

LESSER PEACH BORER (Sesia pictipes G. & R.)

New York C. R. Crosby and assistants (August 7): Appears to be on the increase in north-central New York. (Abstract J. A. H.)

ORIENTAL PEACH MOTH (Laspeyresia molesta Busck)

Connecticut Philip Garman (July 24): The second brood was conspicuous in tips during July. Fully as abundant as last year in East Wallingford, Southington, and Glastonbury, according to reports and observations. (August 24): Parasites apparently not abundant in Hartford and Middlesex Counties. The moth is fully as abundant as last year and seems to be increasing generally throughout the State.

New York C. R. Crosby and assistants (August 7): Only reported from Ulster County where it was occurring in small numbers. (Abstract J. A. H.)

Georgia E. Lee Worsham (August 27): This insect has done very serious damage to peaches in northern Georgia. There has been practically no twig infestation this year.

O. I. Snapp and H. S. Swingle (August 17): Twigs hardening off. No fresh work. Infestation in one orchard at Macon as heavy as last year, but as a rule the infestation is lighter in the Georgia Peach Belt now than it was a year ago.

Ohio E. W. Mendenhall (July 27): The outbreak of the oriental peach moth is quite bad in Greene County. Also find it quite bad on peach stock in the nurseries.

Illinois W. P. Flint (August 21): The oriental peach moth was first found in Illinois in December of 1927. This season it is causing considerable damage to peaches throughout the southern part of the State but more particularly in the extreme southern peach-growing sections in Pulaski and adjoining counties. It has been found, however, in many orchards as far north as Jackson and Williamson Counties. In some young orchards twig infestation ran as high as 80 to 85 per cent, and in a few orchards definite counts made by Mr. Chandler show an infestation of fruit running up to 25 or even 30 per cent.

OAK PLANT BUG (Lygus quercalba Knight)

Connecticut

Philip Garman (July 24): Observed in two different localities in New Haven, both near large oak trees from which the bugs were apparently coming. All fruits examined on trees were punctured, and worthless.

A TREE CRICKET (Oecanthus californicus Sauss.)

California

T. D. Urbahns (August 10): Tree crickets, Oecanthus sp., probably californicus, are migrating from prune orchards, where they have been breeding and probably feeding upon aphids or other forms of insect life. They attack the peaches by feeding and making small holes in the fruit just prior to ripening. While the actual amount of injury is not severe, the very strict grading enforced by the canners requires growers to throw out practically all of this fruit and many thousands of tons of fruit are being lost to the growers. This is the first experience growers have had in this district with the Oecanthus sp., although, to my knowledge, tree crickets destroyed approximately 125 tons of fruit in an orchard about 3 years ago.

EUROPEAN FRUIT LECANIUM (Lecanium corni Bouche)

New York

C. R. Crosby and assistants (August 7): Generally prevalent throughout the State but only seriously abundant in the western part of the State, where infestations are reported as rather heavy in Niagara County, (Abstract J. A. H.)

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

Georgia

O. I. Snapp (August 20): The general infestation in the Georgia Peach Belt has not yet started to show the usual annual increase. A dry, hot, late summer is usually conducive to scale increase. The season so far has been very rainy, with moderate temperatures.

WHITE PEACH SCALE (Aulacaspis pentagona Targ.)

Georgia

O. I. Snapp (August 3): Very heavy infestation on peach trees in a home orchard at Macon.

COTTONY PEACH SCALE (Pulvinaria amygdali Ckll.)

New York

C. R. Crosby and assistants (August 7): Very scarce throughout the State. (Abstract J. A. H.)

CHERRY

CHERRY APHID (Myzus cerasi Fab.)

New York

C. R. Crosby and assistants (August 7): Generally subnormally

abundant throughout the State. (Abstract J.A.H.)

PEAR SLUG (Eriocampoides limacina Retz.)

Nebraska

M. H. Swenk (July 15-August 1): Was unusually injurious on cherry trees in Scotts Bluff County during the period here covered.

CHERRY FRUIT FLIES (Rhagoletis spp.)

New York

C. R. Crosby and assistants (August 7): These insects appear to have been more abundant than usual throughout the State, in many cases doing very considerable commercial damage. (Abstract J. A. H.)

APPLE CURCULIO (Tachypterellus quadrigibbus Say)

Georgia

E. Lee Worsham (July 28): The apple curculio has been found on wild cherries. Determination made by W. S. Fisher.

SHOT-HOLE BORER (Scolytus rugulosus Ratz.)

Michigan

R. H. Pettit (August 11): Has been seriously injuring several young cherry orchards in Oceana County and at Northport in Leelanau County. I have just returned from examining these orchards and found in one case that the attack had come from a dying peach orchard adjacent to the injured trees, and in the other case to a poorly kept apple orchard. In both cases there were enormous piles of brush right in or close by the cherry orchards, and this brush showed the workings of the beetle which is present in enormous numbers. The injury was caused by the beetles flying from the dying trees and brush piles and feeding in the axils of buds of the young cherry trees and thereby killing many of the twigs and branches.

PLUM

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Connecticut

Philip Garman (July 24): Parasite Triaspis curculionis Fitch found parasitizing approximately 10 to 25 per cent of the curculio larvae, in New Haven County. Amount of injury about the same as last year.

New York

C. R. Crosby and assistants (August 7): This insect was normally abundant in the Hudson River Valley and very serious in central and western New York. (Abstract J. A. H.)

RASPBERRY

RASPBERRY FRUIT WORM (Byturus unicolor Say)

New York

C. R. Crosby and assistants (August 7): Though troublesome in several plantings, this insect is decidedly less abundant than was the case last year. (Abstract J. A. H.)

AN APHID (Amphorophora rubi Kalt.)

New York

M. N. Taylor (August 7): Very abundant in Erie County on raspberry.

AN APHID (Aphis rubiphila Patch)

New York

M. N. Taylor (August 7): Less abundant than usual in Erie County, on raspberry.

RASPBERRY CANE BORER (Oberea bimaculata Oliv.)

New York

M. N. Taylor (August 7): In one planting 35 per cent of the tips are girdled. In general the injury is negligible in Erie County.

RASPBERRY SAWFLY (Monophadnoides rubi Harris)

New York

C. R. Crosby and assistants (August 7): Occasional outbreaks reported from Monroe, Chautauqua, and Erie Counties. (Abstract J. A. H.)

BLACKBERRY

BLACKBERRY LEAF MINER (Metallus rubi Forbes)

Georgia

O. I. Snapp (July 30): Infestation rather heavy this year at Fort Valley. Larvae are now nearly full grown.

GRAPE

EIGHT-SPOTTED FORESTER (Alypia octomaculata Fab.)

New York

F. E. Gladwin (August 2): More abundant than usual. No commercial injury at Fredonia.

Connecticut

B. H. Walden (July 13): Grapevines and Virginia creepers nearly stripped in two sections of the city. More abundant compared with average year.

GRAPE PLUME MOTH (Oxyptilus periscelidactylus Fitch)

New York

C. R. Crosby and assistants (August 7): Reported as generally more abundant than usual in the Hudson River Valley but did

little commercial damage. (Abstract J. A. H.)

GRAPE ROOT WORM (Fidia viticida Walsh)

New York

C. R. Crosby and assistants (August 7): Apparently on the increase in western New York. (Abstract J. A. H.)

GRAPE GOLASPIS (Golaspis brunnea Fab.)

Illinois

W. P. Flint (August 21): Mr. J. H. Bigger reports this insect fairly abundant in fields in west-central Illinois, during the week of August 12.

GRAPE FLEA BEETLE (Haltica chalybea Ill.)

New York

C. R. Crosby and assistants (August 7): Generally subnormally abundant throughout the State. (Abstract J. A. H.)

GRAPE BLOSSOM MIDGE (Contarinia johnsoni Sling.)

New York

C. R. Crosby and assistants (August 7): Present but not serious in central and western New York. (Abstract J. A. H.)

GRAPE LEAFHOPPER (Erythroneura comes Say)

New York

C. R. Crosby and assistants (August 7): The grape leafhopper is quite bad in the State and is doing considerable damage.

A WIREWORM (Monocrepidius lividus DeG.)

District of
Columbia

J. Gaastra (August 21): A gentleman brought specimens into the office saying that they were injuring the fruit of grape at 511 K St., N. E.

CURRENT

CURRENT APHID (Myzus ribis L.)

New York

C. R. Crosby and assistants (August 7): Generally prevalent throughout the State but causing little damage. (Abstract J. A. H.)

IMPORTED CURRENT WORM (Pteronidea ribesii Scop.)

New York

C. R. Crosby and assistants (August 7): About normally abundant throughout the State, apparently on the increase in western counties. (Abstract J. A. H.)

PECAN

HICKORY SHUCKWORM (Laspeyresia caryana Fitch)

Georgia

T. L. Bissell (August 24): The midsummer brood of shuck worm larvae had done considerable injury to pecans at Barnes-

ville, particularly to those of the Schley variety. Nuts when attacked before the shell has begun to harden usually drop.

Florida

J. R. Watson (August 20): The shuck worm has been less injurious this year than last year.

PECAN NUT CASE BEARER (Acrobasis hebescella Hbst.)

Florida

J. R. Watson (August 20): The nut case bearer has been more injurious this year than last.

PECAN BUD MOTH (Proteopteryx bolliana Sling.)

North Carolina

W. A. Thomas (August 1): This insect seems to be doing considerable damage to young pecan trees in the vicinity of Chadbourn. Some trees have been observed where every bud is injured. In many instances supplementary buds have developed and these are now being attacked.

PECAN WEEVIL (Balaninus caryae Horn)

Georgia

T. L. Bissell (August 24): Balaninus caryae Horn has begun its activities in pecans in the vicinity of Barnesville. Adults have been collected at one locality on several dates since July 14 and an isolated orchard in another locality is severely infested, whereas the insect has barely made its appearance in the main orchards at Barnesville. All punctures to date have resulted in the dropping of the nuts. Apparently no eggs have yet been laid.

CITRUS

SPIRAEA APHID (Aphis spiraecola Patch)

Florida

J. R. Watson (August 20): The unusually large number of the citrus aphids, Aphis spiraecola, noted in June greatly diminished during July, and the remnant was practically exterminated by the heavy rains which accompanied the passage of the hurricane across the peninsula during August.

BLUEBERRY

CHAIN-SPOTTED GEOMETER (Cingilia catenaria Drury)

Maine

C. R. Phipps (August 27): This looper which was present in very destructive numbers last season is again active (August 15) in blueberry fields in Hancock County but is not causing so much damage as in 1927.

TRUCK-CROP INSECTS

BLISTER BEETLES (Meloidae)

Mississippi

R. W. Harned (August 27): Blister beetles belonging to the species Epicauta lemniscata were reported as injuring tomato plants at Holly Springs, on August 17, and beetles belonging to the species E. marginata Fab. were found injuring pepper plants at Wiggins on August 20.

CHANGA (Scapteriscus vicinus Scudd.)

Florida

J. R. Watson (August 20): The West Indian mole cricket or changa, which is present in a considerable number of localities in the State, seems to be doing more damage than in previous years.

POTATO AND TOMATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

New York

C. R. Crosby and assistants (August 7): This insect is about normally abundant in the eastern part of the State and causing considerable damage to potatoes in the extreme western counties. (Abstract J.A.H.)

Tennessee

A. C. Morgan (August 28): The Colorado potato beetle has not been injurious except in occasional potato patches.

POTATO FLEA BEETLE (Epitrix cucumeris Harr.)

New York

C. R. Crosby and assistants (August 7): This insect is doing some damage throughout the State, but apparently is not abnormally abundant. (Abstract J. A. H.)

TOMATO WORM (Protoparce sexta Johan.)

New York

W. H. Freeman (August 15): The southern hornworm Phlegethontius sexta Johan. is common and destructive on tomatoes in the vicinity of Tottenville, S.I. Cocoons of the parasite Apanteles congregatus Say were noted on only one worm to date.

TOBACCO WORM (Protoparce quinquemaculata Haw.)

New York

W. H. Freeman (August 14): So far this season only one larva of the northern variety, Phlegethontius quinquemaculata, has been noted.

POTATO APHID (Illinoia solanifolii Ashm.)

New York

M. N. Taylor (August 7): One field of potatoes in Erie County was seriously injured by this insect.

CABBAGE

IMPORTED CABBAGE WORM (Pieris rapae L.)

- New York M. N. Taylor (August 7): This insect did considerable damage in early plantings of cabbage in Erie County.
- Illinois W. P. Flint (August 21): This pest of cabbage is extremely abundant throughout central and northern Illinois. Some recent examinations by Mr. Compton show as high as upwards of 400 eggs on a single cabbage plant in the vicinity of Chicago. A number of plants which were examined in a commercial field gave an average of 111 eggs per plant.
- Wisconsin E. L. Chambers (August 15): While cabbage and cauliflower were hard hit by this pest, unusually heavy losses of nasturtiums growing in the yards and gardens were reported generally over the southern part of the State.
- Alabama L. W. Brannon (August 16): The imported cabbage worm is causing considerable injury to cabbage in the vicinity of Birmingham.

CROSS-STRIPED CABBAGE WORM (Evergestis rimosalis Guen.)

- North Carolina W. A. Thomas (August 15): This insect is unusually abundant on collards in the home gardens in the Chadbourn section. Its attack seems to be confined to the tender buds of the plants, which are so completely destroyed that growth is stopped until supplementary buds are formed on the stalk near the injured area. These buds are usually formed after the larvae have stopped feeding.

CABBAGE MAGGOT (Hylemyia brassicae Bouche)

- New York C. R. Crosby and assistants (August 7): This insect is more serious than in many years in central and western New York, where the infestations in late cabbage seed-beds were very severe. (Abstract J.A.H.)

CABBAGE APHID (Brevicoryne brassicae L.)

- New York C. R. Crosby and assistants (August 7): This insect is reported subnormally abundant throughout the State. (Abstract J.A.H.)

HARLEQUIN BUG (Murgantia histrionica Hahn)

- Tennessee A. C. Morgan (August 28): The harlequin bug, which was so numerous last year, has not caused any complaints thus far this season.

Alabama

L. W. Brannon (August 10): Adults of the harlequin bug are relatively scarce on collards and cabbage, but the nymphs are relatively abundant and are causing some injury. Adults and nymphs are not so abundant as they were this time last season and are not causing the damage that they were then.

STRAWBERRY

STRAWBERRY LEAF ROLLER (Ancylis comptana Frohl.)

New York

C. R. Crosby and assistants (August 7): This insect is generally scarce throughout the State. (Abstract J. A. H.)

STRAWBERRY WEEVIL (Anthonomus signatus Say)

New York

C. R. Crosby and assistants (August 7): Apparently not so abundant as usual in the Hudson River Valley, but doing considerable damage to ever-bearing varieties of strawberry in the western part of the State. (Abstract J.A.H.)

GRAPE MEALYBUG (Pseudococcus maritimus Ehrh.)

North Carolina

W. A. Thomas (July 31): In some of the areas around Chadbourn, where strawberries are dying, it has been observed that many of the plants are heavily infested with this insect. They occur principally on the upper root areas and just below the crown of the plant. The general appearance of an infested plant is very similar to that of one attacked by the strawberry root aphid and the injury to the individual plant seems to be just as severe.

BEANS

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

New York

M. N. Taylor (August 7): The Mexican bean beetle is more abundant this year than last in Erie County. The infestations are spotted.

Virginia

Monthly Letter Bureau of Entomology, No. 171, July, 1928: N. F. Howard, Columbus, Ohio, visited Blacksburg, Lynchburg, Danville, Richmond, and other points in Virginia, July 16 and 18, in company with Prof. Schoene, of the experiment station at Blacksburg, and Mr. Moore, county agent, to determine the intensity of the infestation by the Mexican bean beetle, which had been reported to be seriously injuring beans in that section. Mr. Howard also visited Washington to arrange for experimental work on the Mexican bean beetle, to be conducted at the Arlington Farm in Virginia.

- North Carolina W. A. Thomas (August 15): Pole lima beans in the vicinity of Chadbourn are now being seriously injured by this insect. All summer snap beans are now over and the beetles have transferred to the limas in great numbers. This insect first appeared in the Chadbourn area during the past spring, where it was found in small numbers on early snap beans on just a few farms. At this time the infestation seems to be rather widespread, the insect occurring on nearly every farm in the territory.
- Tennessee A. C. Morgan (August 28): The Mexican bean beetle has done but very little damage and is just now showing up on late beans.
- Alabama L. W. Brannon (August 16): In most instances the second crop of beans in the Birmingham locality was completely destroyed by the Mexican bean beetle. Several patches under observation were plowed up before time for picking. Bean-beetle damage to the second crop of beans was much worse than was expected. On August 4 a patch of young beans under observation was very heavily infested with adult bean beetles and egg masses were numerous. Second-generation beetles began emerging in the life-history experiments on July 21 and shortly after that were found in the fields in large numbers.
- Mississippi R. W. Harned (August 27): Serious injury to garden beans by the Mexican bean beetle was reported on August 8 from Kendrick, and a few days later from Fulton and Smithville.

PEAS

PEA APHID (Illinoia pisi Kalt.)

- New York R. G. Palmer (August 7): There has been no commercial loss to peas in Orleans County.
- M. N. Taylor (August 7): This insect caused considerable injury to early plantings of peas in Erie County.

PEANUTS

POTATO LEAFHOPPER (Empoasca fabae Harr.)

- Florida J. R. Watson (August 20): Peanuts in the Everglades section have been severely damaged by the bean leafhopper, Empoasca fabae.

VELVET BEAN CATERPILLAR (Anticarsia gemmatilis Hbn.)

- Florida J. R. Watson (August 20): In July the velvet bean caterpillar heavily infested peanuts in the Everglades. This is the first instance that has come to our attention of moths laying

their eggs on peanuts, although it has long been observed that peanuts will be attacked if they are in close proximity to a field of velvet beans which have been defoliated. This new development is probably due to the fact that there were practically no velvet beans available in the Everglades.

CUCUMBERS

ONION THRIPS (Thrips tabaci L.)

New York

R. G. Palmer (August 7): This insect has been numerous enough to cause commercial loss to cucumbers in several plantings in Orleans County.

STRIPED CUCUMBER BEETLE (Diabrotica vittata Fab.)

New York

C. R. Crosby and assistants (August 7): This insect is undoubtedly less troublesome than usual throughout the State. (Abstract J. A. H.)

Nebraska

M. H. Swenk (July 15-August 1): Complaints of injury to cucurbits by this insect continued to be received in about normal numbers during the period covered by this report.

SQUASH BUG (Anasa tristis DeG.)

Nebraska

M. H. Swenk (July 15-August 1): Complaints of injury to cucurbits by the squash bug continued to be received in about normal numbers during the period covered by this report.

MELON APHID (Aphis gossypii Glov.)

Nebraska

M. H. Swenk (July 15-August 1): Complaints of injury to cucurbits by this insect continued to be received in about the normal numbers during the period here reported.

PICKLE WORM (Diaphania nitidalis Stoll.)

Tennessee

A. C. Morgan (August 28): Some complaint has been made of the ravages of the pickle worm on late cucumbers.

ONIONS

ONION MAGGOT (Hylemyia antiqua Meig.)

New York

G. N. Salisbury (August 2): This insect is injurious to onions in one area at Cherry Creek, Chautauqua County.

M. N. Taylor (August 7): This insect is causing serious damage to onions in Erie County, as high as 40 per cent in some plantings.

SWISS CHARD

SPOTTED BEET WEBWORM (Hymenia perspectalis Hbn.)

Alabama

L. W. Brannon (August 16): The first spotted beet webworm larva of the season was found on Swiss chard at Birmingham on July 18. The larva was about half grown and died 24 hours after collection. On July 31 the first moth of the season was found on grass near Swiss chard. On August 2, 30 or 40 moths were seen when sweeping in a patch of weeds near the Swiss chard patch. Only a very few eggs and one or two larvae have been seen on Swiss chard and no damage of economic importance has been seen in the district.

BEET AND SPINACH

SPINACH LEAF MINER (Pegomya hyosscami Panz.)

New York

M. N. Taylor (August 7): The midseason crops are heavily infested in Erie County, as high as 90 per cent loss having occurred.

PEPPER

GREEN PEACH APHID (Myzus persicae Sulz.)

California

J. C. Elmore (August 22): The aphids have been very numerous on peppers in this section (Orange County) during the latter part of July until the present. Control has been difficult because of cool weather and the prevalence of windy days. The average temperature for this period has been about 70° F., with a minimum of 49° and a maximum of 85°. Leaves and pods have begun to drop from the pepper plants where the heaviest infestations have not been controlled and in many fields the late settings have been retarded.

CARROTS

CARROT RUST FLY (Psila rosae Fab.)

New York

M. N. Taylor (August 7): This insect has caused 30 per cent injury to carrots in some fields in Erie County.

SWEET POTATOES

SWEET-POTATO WEEVIL (Cylas formicarius Fab.)

Alabama

K. L. Cockerham (July 31): After shipping-shed inspections at Foley, Baldwin County, of around 75 cars of early sweet potatoes and a corresponding amount of inspections in fields where early potatoes have been harvested, no sweet-potato weevils have thus far been found this year. This is especially encouraging since all these potatoes have been dug and shipped from an area previously very heavily infested.

BANDED CUCUMBER BEETLE (Diabrotica balteata Lec.)

Mississippi

K. L. Cockerham (August 23): These beetles are usually very abundant on the Mississippi coast during the summer and early fall, attacking various crops and especially sweet potatoes, but this year they occur in fewer numbers than for several seasons around Biloxi. Now one finds an occasional adult where last year hundreds occurred.

A WIREWORM (Heteroderes laurentii Guer.)

Alabama

K. L. Cockerham (July 31): This insect is reported as being less injurious to sweet potatoes this year than it was last season near Foley. Shipping-shed inspections of from 75 to 100 carloads of sweet potatoes have substantiated this fact. It has been noted that the damage is worse on Porto Rico or red-skin potatoes than on Triumphs or white potatoes. I can not say whether or not this is a specific variety preference or whether it is due to the fact that these potatoes were planted on infested soil.

S O U T H E R N F I E L D - C R O P I N S E C T S

TOBACCO

TOBACCO HORNWORMS (Protoparce spp.)

Tennessee

A. C. Morgan (August 28): The tobacco hornworms have been scarcer than at any time during the 21 years of my residence in Tennessee. Almost no poisoning has been necessary.

TOBACCO FLEA BEETLE (Eoitrix parvula Fab.)

Tennessee

A. C. Morgan (August 28): The tobacco flea beetle has been less numerous than usual throughout the year.

GREEN JUNE BEETLE (Cotinis nitida L.)

Tennessee

A. C. Morgan (August 28): In a tobacco field of 45 acres the first and second stands of plants were almost completely ruined by the green June beetle larvae. This was the most severe infestation of this species that has come to our attention.

F O R E S T A N D S H A D E - T R E E I N S E C T S

PERIODICAL CICADA (Tibicina septendecim L.)

Connecticut

W. E. Britton (July 24): All adults had disappeared from New Haven, Hartford, and Middlesex Counties by July 15. In some places the ground is covered with wings where the bodies had been eaten by birds. Farmers note that crows do not pull corn in a year when 17-year locusts are abundant. These insects were somewhat less abundant than in 1911.

New Jersey

Miss M. G. Norton (August 4): Specimens of pupal skins were sent in from Princeton for determination. (Identified by J. A. Hyslop.)

A DOG DAY CICADA (Tibicina sayi S. & G.)

Illinois

W. P. Flint (August 21): The dog-day cicada is more abundant than usual in the vicinity of Champaign this season.

BAGWORM (Thyridopteryx ephemeraeformis Haw.)

Ohio

E. W. Mendenhall (August 7): The bagworm is beginning to show up again in central and southern Ohio. I also find some outbreaks in nurseries.

Mississippi

R. W. Harned (August 27): Bagworms have been very abundant during the past few weeks. Specimens collected on cedar at Columbus, on arborvitae at Holly Springs, and Cleveland, on evergreen at Tunica, and on Italia cypress at Jackson, (Identification by J. M. Langston.)

LEOPARD MOTH (Zeuzera pyrina L.)

Connecticut

B. H. Walden (July 24): During a storm with high wind on July 23 at New Haven many branches were broken from street trees (elms and maples). The breaks in many cases were where the branch was injured by the leopard moth several years previously. An examination of considerable material showed but little recent or fresh work.

WHITE-MARKED TUSSOCK MOTH (Hemerocampa leucostigma S. & A.)

- Maine C. R. Phipps (August 27): The egg masses are now quite conspicuous (August 25) in Bangor and elsewhere, the first outbreak in a number of years. Attacking elm, apple, etc.
- New York C. R. Crosby and assistants (August 7): Subnormally abundant throughout the State. (Abstract J. A. H.)

RED SPIDER (Tetranychus telarius L.)

- Ohio E. W. Mendenhall (August 11): The red spider, Tetranychus bimaculatus Harvey, is very bad on willow, honey locust, and elm leaves and is causing them to turn brown and die in East Columbus.

ASH

BANDED ASH BORER (Neoclytus capraea Say)

- Nebraska M. H. Swenk (July 15-August 1): This insect has been frequently reported as attacking ash during the last two weeks.

BEECH

TWO-LINED PROMINENT (Hemerocampa bilineata Pack.)

- Michigan R. H. Pettit (August 11): I have just returned from a trip to ~~Oceana County~~, during which I found that about 800 acres of full-grown beech timber had been practically defoliated by Seirondonta bilineata. The larvae are now descending and cover the trunks of many trees rather thickly and lie at the bases of these trees by the quart. The larvae at this period are full-grown and many of them are starving while others seem to be suffering from disease.

CATALPA

CATALPA SPHINX (Ceratomia catalpae Boisd.)

- Mississippi R. W. Harned (August 27): Specimens of the catalpa sphinx were reported recently as completely defoliating catalpa trees at Greenville and Durant.

COTTONWOOD

COTTONWOOD BORER (Plectrodera scalator Fab.)

Nebraska

M. H. Swenk (July 15-August 1): This insect has been frequently reported attacking cottonwood during the last two weeks.

ELM

ELM BORER (Saperda tridentata Oliv.)

Ohio

E. W. Mendenhall (August 10): I find an outbreak of the elm borer at Dayton on American elms and some damage is being done.

Nebraska

M. H. Swenk (July 15-August 1): This insect has been frequently reported attacking elms during the period covered by this report.

ELM COCKSCOMB GALL (Colopha ulmicola Fitch)

Illinois

W. P. Flint (August 21): The cockscomb gall of elm is being received in a little more than normal numbers.

HACKBERRY

HACKBERRY NIPPLE GALL (Pachypsylla celtidis-manna Riley)

Nebraska

M. H. Swenk (July 15-August 1): During the third week in July we began to receive complaints of unusual infestation of hackberry trees with the hackberry nipple gall. These reports were sent in from Colfax, Hall, and Buffalo Counties.

HICKORY

HICKORY TWIG BORER (Chramesus hicoriae Lec.)

Ohio

E. W. Mendenhall (August 2): I find an outbreak of the hickory twig borer at Linworth, Franklin County. The dead twigs are quite conspicuous.

LARCH

LARCH SAWFLY (Nematus erichsonii Hartig)

Connecticut

R. B. Friend (August 24): A plantation of European larch was partly stripped by Lygaeonematus erichsonii at Middleburg this year. Larvae are now in cocoons in the ground.

Wisconsin

E. L. Chambers (August 16): Large tracts of white pine in the vicinity of Fond du Lac, northeastern part of the State, were attacked by this fly.

LOCUST

LOCUST LEAF MINER (Chalepus dorsalis Thunb.)

Pennsylvania

J. A. Hyslop (August 14): These insects were causing the locust trees between Williamsport and Harrisburg to appear brown from a short distance.

Ohio

E. W. Mendenhall (August 7): The locust trees in central and southern Ohio are badly affected by the locust hispid.

MAPLE

COTTONY MAPLE SCALE (Pulvinaria vitis L.)

Connecticut

W. E. Britton (July 24): This insect is seemingly more abundant this year than usual, having been reported from Hartford, West Haven, East Hartford, and Stanford. It was attacking elm at East Hartford and Silver maple at Stanford July 23; young scales were crawling.

OAK

OAK TWIG PRUNER (Hypernallus villosus Fab.)

Connecticut

W. E. Britton (August 24): This insect has been reported from Mystic, Watertown, Hamden, and New Haven attacking oak in about the usual abundance.

PINE

INTRODUCED PINE SAWFLY (Diprion simile Hartig)

Connecticut

W. E. Britton (August 24): Specimens received and the insect reported from a number of places in and around New Haven, attacking pine.

A SAWFLY (Neodiprion excitans Roh.)

Mississippi

R. W. Harned (August 27): Sawflies that have been tentatively identified as Neodiprion excitans were received from Brookhaven on August 18, with the report that they were injuring young pine trees in that vicinity.

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana Schiff.)

Connecticut

M. P. Zappe (July 24): Work of this insect is seen in nurseries and it appears to be quite abundant, more being noted than ever before on pines at Stanford and Hamden.

POPLARS

POPLAR BORER (Saperda calcarata Say)

Nebraska

M. H. Swenk (July 15-August 1): This insect has been frequently reported attacking poplars during the last two weeks.

SPRUCE

SPRUCE MITE (Paratetranychus uniunguis Jacobi)

Connecticut

W. E. Britton (August 24): This pest is apparently on the increase, as it has been reported from Clinton, Pomfret, Greenwich, Wallingford, Stratford, Middleton, Cheshire, Manchester, New Canaan, Norwalk, Ridgefield, Fairfield, Woodmount, and East Hartford.

WALNUT

WALNUT CATERPILLAR (Datana integerrima G. & R.)

Tennessee

A. C. Morgan (August 28): The walnut datana which defoliated nearly all of the walnut trees in the Clarksville section last year has not been observed this year except in rare instances.

WILLOW

EUROPEAN WILLOW BEETLE (Plagiodera versicolora Laich.)

Connecticut

W. E. Britton (July 24): This imported insect has now spread all over Connecticut, having been reported recently on willow at Colebrook and West Haven.

M. P. Zappe (August 22): This insect has spread from the southwestern corner of the State to the Rhode Island line in the southern part of the State and to Thompsonville in the northern part. It is more plentiful in New London and Hartford Counties, completely defoliating willows.

INSECTS AFFECTING GREENHOUSE AND
ORNAMENTAL PLANTS AND LAWNS

(Aphididae)

Tennessee

A. C. Morgan (August 28): The usual heavy infestation of plant lice on roses and other ornamentals is lacking this season.

NEGROBUG (Thyreocoris pulicoarius Germ.)

Wisconsin

E. L. Chambers (August 8): Several complaints were received from Dane and Jefferson Counties to the effect that coreopsis, cosmos, and other annuals were so severely attacked as to completely wilt down before they were discovered. In some instances plants were completely destroyed by this pest, which is unusual for this locality.

BLACK STINK BUG (Cosmopepla bimaculata Thos.)

New York

G. H. Griswold (July 27): This insect has been noted in a heavy infestation in a flower garden at Altamont, Albany County, attacking the seed pods of snapdragon and columbine.

SEMITROPICAL ARMYWORM (Prodenia eridania Cram.)

Florida

J. R. Watson (August 20): One of the outstanding entomological events of July and August in Florida was a heavy outbreak of the semitropical armyworm, covering practically the entire peninsula. It defoliated practically all of the amaranth in places, and in the Everglades the closely related water hemp. In addition to coffee weeds and other weeds, it defoliated castor beans and many other ornamentals, and in places did considerable injury to grasses, but in most sections of the State other cultivated crops were not much injured. This is the largest outbreak that has occurred since 1917.

A RED SPIDER (Tetranychus sp.)

Iowa

C. N. Ainslie (August 16): More damage from red spiders has been observed in this vicinity, Sioux City, than for many years past. A large commercial flower garden has been nearly ruined, the pests appearing first on delphinium, then spreading to dahlias, gladioli, and other flowers. A long continued hot and dry interval seems to have favored their multiplication. they are numerous on fruit and shade trees and doing injury to foliage.

Mississippi

R. W. Harned (August 27): Red spiders have been very abund-

ant during the summer in all parts of the State, especially on ornamental plants of various kinds. Injury to shade trees and cotton has also been reported from a few localities.

DOGWOOD.

A SAWFLY (Macremphytus sp.)

Maryland

J. A. Hyslop (August 23): Full-grown larvae of this insect are rapidly defoliating Cornus stolonifera near Silver Spring.

RHODODENDRON

RHODODENDRON LACEBUG (Stephanitis rhododendri Horv.)

Connecticut

W. E. Britton (August 24): Leptobyrsa rhododendri Horv. occurs throughout the State and is apparently increasing, as it has been reported from Wilton, Norwalk, Darien, New Canaan, Stamford, Greenwich, Wallingford, Manchester, Pomfret, Cromwell, Enfield, East Hartford, Norwich, Waterford, Rockfall, Woodmont, and Mystic. It was attacking rhododendron and kalmia.

I N S E C T S A T T A C K I N G M A N A N D
D O M E S T I C A N I M A L S

MAN

FLEAS (Ctenocephalus spp.)

Wisconsin

E. L. Chambers (August 14): Six complaints have been received during the past week concerning cat and dog fleas which were a nuisance in homes and yards where pets were kept.

CHIGGER (Trombicula irritans Riley)

Wisconsin

E. L. Chambers (August 15): Several severe cases of infestation from chiggers have been brought to the attention of this office, two of which have been of several weeks duration and did not yield to sulphur and salt bath treatment.

OAT THRIPS (Anaphothrips stiratus Ort.)

Pennsylvania

F. C. Bishopp (July 23): Annoyance from the oat thrips at Allentown was reported by the Thermolator Corporation.

BUDBUG (Cimex lectularis L.)

Maryland and
Virginia

F. C. Bishopp (August): Bedbug infestations of chicken houses have been reported from Maryland and Virginia.

HOUSE FLY (Musca domestica L.)

General

F. C. Bishopp (August): House flies have been rather more abundant and annoying in Maryland, Virginia, and New York, than usual.

AMERICAN DOG TICK (Dermacentor variabilis Say)

Maryland

F. C. Bishopp (July): Several reports have been received of dog tick annoyance to men and animals, especially in the Chesapeake Bay Region.

CRINKLED FLANNEL MOTH (Lagoa crispata Pack.)

Mississippi

R. W. Harned (August 13): Several complaints have reached the State Plant Board office during the past few days that children have been severely stung by some odd-looking worms. The worms vary in size from 1/2 to 1 inch long, are covered with soft brown hair, and have a ridge along the back giving the worm the shape of a house-top. The Plant Board says that this is the larval stage of the crinkled flannel moth, and is most abundant in late summer and fall. Sharp poisonous spines under the soft brown hair make it very dangerous, and in some cases, physicians have been called to treat the people. A case is known where a finger was stiffened for several years by the sting of this insect.

CATTLE

TROPICAL CATTLE TICK (Margaropus annulatus australis Fuller)

District of
Columbia

F. C. Bishopp (August 25): On request from the Washington office, Mr. E. C. Cushing collected specimens of ticks (nymphs and adults) from dairy cows in this vicinity. This species was reported by the writer from Key West, Fla., in 1913. The present evidence indicates that the species is spreading northward and its presence may add seriously to the difficulty of eradication since this variety has much less restricted host relations than our common form.

A SAND FLY (Culicoides furens Poey.)

Florida

F. C. Bishopp (July and August): Several reports of severe annoyance from sand flies have been received.

A FORMER INSECT PEST

Nebraska

M. H. Swenk (July 15-August 1): In Lincoln County a well heavily infested with the springtail, Podura aquatica, so that the water in the horse tank and also the drinking water for the house is more or less contaminated with these insects, was reported late in July.

HOUSEHOLD AND STORED -

PRODUCTS INSECTS

TERMITES (Reticulitermes spp.)

Kansas

J. W. McColloch (August 12): Termite injury to woodworm in a dwelling at Pratt was reported August 10, and two houses at Manhattan were found infested August 12.

Nebraska

M. H. Swenk (July 15-August 1): A report of injury by our common termite, Reticulitermes tibialis Banks., in a flower garden was received from Douglas County July 20, and the infestation of a house at Holdrege, Phelps County, was reported on July 31.

EUROPEAN EARWIG (Forficula auricularia L.)

Oregon

R. L. Ringer (July 20): I wish to advise you of the activities of the European earwig, which has become a dreadful pest on the Pacific Coast. It has been found in shipments of orange, tomatoes, and lettuce from California, so undoubtedly it will soon be spread all over the United States. It seems to have gained a foothold on this coast less than 10 years ago and now spreads from California into British Columbia.

FIRE ANT (Solenopsis geminata Fab.)

Mississippi

R. W. Harned (August 27): Probably no species of ant, except the Argentine ant, surpasses the fire ant as a general pest in this State. We receive dozens of complaints every year in regard to its depredations. As an example of the ant's destructiveness, we should like to quote a letter from Mr. L.J. Goodgame, one of our field inspectors, who writes as follows: "The fire ants are ruining the town. I can show you house after house where ladies will show you all kinds of clothes that have been ruined by the ants. In several places I have seen expensive dresses that have been bitten full of small holes. The women have proved to me that the ants attack clean clothes as well as soiled ones. These ants are also ruining upholstery in furniture, and even attack people while they are sitting in chairs."

During the Mississippi flood the city of Greenville was under

many feet of water. After the flood only a few colonies of the Argentine ant could be found, but strange to say, the flood did not apparently affect the fire ant for they are extremely numerous there now and by far the predominant species. While scouting in Greenville Mr. Goodgame encountered some of the little parasitic phorid flies which were attacking the fire ant. Specimens were submitted to Mr. J. R. Malloch who determined the flies as Plastophora crawfordi. Fire ants and tiny black ants were found to be abundant, and especially troublesome in some of the houses at Shaw.

ARGENTINE ANT (Iridomyrmex humilis Mayr.)

Mississippi

R. W. Harned (August 27): Infestations of the Argentine ant have been found recently at Holly Bluff, and Longview for the first time. Mr. Chesley Hines also found an infestation at Canton, which was caused by a lady removing shrubs and other ornamental plants from an infested area in that town to a non-infested area. Recent investigations at Shaw indicate that the ant has apparently been completely eradicated from that town.

ANTS (Formicidae)

Mississippi

R. W. Harned (August 27): The odorous house ant, Tapinoma sessile Say, appears to be rather sporadically distributed throughout the State. At Grenada, Greenwood, Columbus, and many other towns it has commonly been found infesting a number of houses on the same block or on adjoining blocks, thus resembling the Argentine ant in its general habits. It also resembles this species so much in appearance that one can easily mistake it for the Argentine ant. The ant most commonly nests out of doors in the surface soil just beneath leaves, boards or other debris. A correspondent at Lyman sent specimens of Dorymyrmex pyramicus flavus Perg. for identification with the report that they were giving trouble in the homes of several farmers living in that vicinity. This species, so far as our observation goes, does not appear to be troublesome to housekeepers living in towns.

CIGARETTE BEETLE (Lasioderma serricorne Fab.)

Nebraska

M. H. Swenk (July 15-August 1): One case of infestation of a mohair suite of furniture with the cigarette beetle was reported from Jefferson County in the middle of July.

CARPET BEETLE (Anthrenus scrophulariae L.)

Nebraska

M. H. Swenk (July 15-August 1): The present season an unusual number of complaints about this pest have been received.

